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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/644,161	08/20/2003	Vi Chi Chan	X-1466 US	5780
24309	7590	04/03/2006	EXAMINER	
XILINX, INC ATTN: LEGAL DEPARTMENT 2100 LOGIC DR SAN JOSE, CA 95124			HIRL, JOSEPH P	
			ART UNIT	PAPER NUMBER
			2129	

DATE MAILED: 04/03/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/644,161

Applicant(s)

CHAN, VI CHI

Examiner

Joseph P. Hirl

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 20 August 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-19 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-19 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 20 August 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 111203.
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: _____.

DETAILED ACTION

1. Claims 1-19 are pending in this application.

Claim Rejections - 35 USC § 101

2. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claims 1-19 are rejected under 35 U.S.C. § 101 for nonstatutory subject matter. The computer system must set forth a practical application of § 101 judicial exception to produce a real-world result. Benson, 409 U.S. at 71-72, 175 USPQ at 676-77. The invention is ineligible because it has not been limited to a substantial practical application. A result that binds three components together to form a rule is useless in a real world situation.

In determining whether the claim is for a "practical application," the focus is not on whether the steps taken to achieve a particular result are useful, tangible, and concrete, but rather that the final result achieved by the claimed invention is useful, tangible and concrete. If the claim is directed to a practical application of the § 101 judicial exceptions producing a result tied to the physical world that does not preempt the judicial exception, then the claim meets the statutory requirement of 35 U.S. C. § 101.

The phrases “expressing the design rule ... in a data file,” “matching component objects having a same identifier”, “determining how a positive response is tested” and “entering ... design rule using a runtime plug-in” are not clear in its purpose or scope.

The invention must be for a practical application and either:

- 1). specify transforming (physical thing – article) or
- 2). have the Final Result (not the steps) achieve or produce a
useful (specific, substantial and credible),
concrete (substantially repeatable / non unpredictable), and
tangible (real world / non abstract) result

(tangibility is the opposite of abstractness).

A claim that is so broad that it reads on both statutory and non-statutory subject matter, must be amended, and if the specification discloses a practical application but the claim is broader than the disclosure such that it does not require the practical application, then the claim must be amended.

Claims that, step through abstract concepts, change existing rules, form an interface, expressed as software per se, match component objects, express a design rule in source code, etc. are not statutory.

3. Claims 1-6 and 15-19 are rejected under 35 U.S.C. 101 because the claimed invention lacks patentable utility. A rule by definition has at least two components .. a rule of a single division does not exist or has no functionality.

4. Claims 2, 3, 16 are rejected under 35 U.S.C. 101 because the claimed invention lacks patentable utility. If the source code is not compiled, the computer to which program is applied will not function.

Claim Rejections - 35 USC § 112

4. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

5. Claims 1-6 and 15-19 are rejected under 35 USC 112, first paragraph because current case law (and accordingly, the MPEP) require such a rejection if a 101 rejection is given because when Applicant has not in fact disclosed the practical application for the invention, as a matter of law there is no way Applicant could have disclosed how to practice the undisclosed practical application. This is how the MPEP puts it:

("The how to use prong of section 112 **incorporates as a matter of law** the requirement of 35U.S.C. 101 that the specification disclose as a matter of fact a practical utility for the invention.... If the application fails as a matter of fact to satisfy 35 U.S.C. 101, then the application also fails as a matter of law to enable one of ordinary skill in the art to use the invention under 35 U.S.C. § 112."); In re Kirk, '376 F.2d 936, 942, 153 USPQ 48, 53 (CCPA 1967) ("Necessarily, compliance with § 112 requires a description of how to use presently useful inventions, **otherwise an applicant would anomalously be required to teach how to use a useless invention.**"). See, MPEP 21107.01 (IV), quoting In re Kirk (emphasis added).

Therefore, claims 1-16 and 15-19 are rejected on this basis.

6. Claims 2, 3 and 16 are rejected under 35 USC 112, first paragraph because current case law (and accordingly, the MPEP) require such a rejection if a 101 rejection

is given because when Applicant has not in fact disclosed the practical application for the invention, as a matter of law there is no way Applicant could have disclosed how to practice the undisclosed practical application. This is how the MPEP puts it:

("The how to use prong of section 112 **incorporates as a matter of law** the requirement of 35U.S.C. 101 that the specification disclose as a matter of fact a practical utility for the invention.... If the application fails as a matter of fact to satisfy 35 U.S.C. 101, then the application also fails as a matter of law to enable one of ordinary skill in the art to use the invention under 35 U.S.C. § 112."); In re Kirk, '376 F.2d 936, 942, 153 USPQ 48, 53 (CCPA 1967) ("Necessarily, compliance with § 112 requires a description of how to use presently useful inventions, **otherwise an applicant would anomalously be required to teach how to use a useless invention.**"). See, MPEP 21107.01 (IV), quoting In re Kirk (emphasis added).

Therefore, claims 2, 3 and 16 are rejected on this basis.

Claim Rejections - 35 USC § 102

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

8. Claims 1-19 are rejected under 35 U.S.C. 102(b) as being anticipated by Kruglinski (Inside of Visual C++, referred to as **Kruglinski**).

Claim 1

Kruglinski anticipates dividing a design rule into at least one of three components, the three components comprising, a design rule triggering criteria, a condition, and an action, wherein the action is responsive to an evaluation of the condition (**Kruglinski**, page 131:20-30; page 132:1-18; Examiner's Note (EN): ¶ 12 applies; design rule is not functionally distinct from generic rules); expressing the design

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rule in at least one among a datafile and source code (**Kruglinski**, page 7, Fig. 1-1); and binding the three components together to form a rule object at runtime (**Kruglinski**, page 7, Fig. 1-1).

Claims 2, 16

Kruglinski anticipates entering at least one among a new design rule and a change to an existing design rule at runtime using a runtime plug-in, wherein the step of entering is done without compiling (**Kruglinski**, page 7, Fig. 1-1; EN: the runtime plug-in occurs through the linker various libraries).

Claim 3

Kruglinski anticipates the step of entering at least one among the new design rule and the change to the existing design rule comprises the step of changing at least, a portion of one component (**Kruglinski**, page 7, Fig. 1-1; EN: the change occurs from selection of element in the various libraries).

Claim 4, 12, 17

Kruglinski anticipates a common object interface to a rule checker program to form an interface between the three components (**Kruglinski**, page 7, Fig. 1-1; EN: such would occur in the OBJ files).

Claims 5, 19

Kruglinski anticipates the rule-based operation is a design rule checker (**Kruglinski**, page 131:20-30; page 132:1-18; EN: all if statements are designed to check for a condition; a design rule checker is not functionally distinct from a generic if statement).

Claim 6

Kruglinski anticipates the datafile includes an XML statement and the source code includes a C or C++ instruction (**Kruglinski**, page 6:12-34; Fig. 1-1; page 131:20-30; page 132:1-18; page 13:10-35 EN: XML and HTML are conceptually equivalent).

Claim 7

Kruglinski anticipates comprising the steps of: reading rules from at least one among a library and a textural datafile and reading rules from at least one among a dynamic rule component library and a textural rule component datafile (**Kruglinski**, Fig. 1-1); constructing component objects from at least one among the library and the textural datafile and from at least one among the dynamic rule object library and the textural rule component datafile (**Kruglinski**, Fig. 1-1); and matching component objects having a same identifier and revision to form the rule object (**Kruglinski**, Fig. 1-1; EN: such is the process of accessing library components).

Claim 8

Kruglinski anticipates the step of binding the matching component objects that have a most recent version at runtime to form the rule object (**Kruglinski**, Fig. 1-1; EN: such is the generic process of selecting from a library or object source).

Claim 9

Kruglinski anticipates an application criteria component for determining when a Rule is triggered (**Kruglinski**, page 131:20-30; page 132:1-18); a rule condition component for determining how a positive response is tested for the rule (**Kruglinski**, page 131:20-30; page 132:1-18); and an action component for determining the action

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taken to detection of the positive response (**Kruglinski**, page 131:20-30; page 132:1-18).

Claim 10

Kruglinski anticipates the program further comprises means for expressing a design rule in at least one among a datafile and source code (**Kruglinski**, Fig. 1-1).

Claim 11

Kruglinski anticipates the program further comprises means for entering at least one among a new design rule and a change to an existing design rule at runtime using a runtime plug-in (**Kruglinski**, Fig. 1-1; EN: a plug-in comes about from the runtime library as an input to the linker).

Claim 13

Kruglinski anticipates the program further comprises a rule factory for building a rule repository for the design rule checker program from at least one among a datafile and program objects (**Kruglinski**, page 131:20-30; page 132:1-18: Fig. 1-1; EN: Fig. 1-1 is the factory – application of the build process).

Claim 14

Kruglinski anticipates the rule factory searches specified directories for user specified rule additions (**Kruglinski**, Fig. 1-1; EN: such occurs at the linker related to the libraries).

Claim 15

Kruglinski anticipates a machine readable storage, having stored thereon a

computer program having a plurality of code sections executable by a machine for causing the machine to perform the steps of: dividing any design rule into at least one of three components comprising an application criteria, a rule condition, and an action (Kruglinski, page 131:20-30; page 132:1-18; EN: ¶ 12 applies; design rule is not functionally distinct from generic rules); expressing a design rule in at least one among a datafile and an object code (Kruglinski, Fig. 1-1); and entering at least one among a new design rule and a change to an existing design rule at runtime using a runtime plug-in (Kruglinski, Fig. 1-1; EN: a plug-in comes about from the runtime library as an input to the linker).

Claim 18

Kruglinski anticipates the plurality of code sections bind the three components to form a rule object at runtime (Kruglinski, page 7, Fig. 1-1).

Examination Considerations

9. The claims and only the claims form the metes and bounds of the invention. "Office personnel are to give the claims their broadest reasonable interpretation in light of the supporting disclosure. *In re Morris*, 127 F.3d 1048, 1054-55, 44USPQ2d 1023, 1027-28 (Fed. Cir. 1997). Limitations appearing in the specification but not recited in the claim are not read into the claim. *In re Prater*, 415 F.2d, 1393, 1404-05, 162 USPQ 541, 550-551 (CCPA 1969)" (MPEP p 2100-8, c 2, I 45-48; p 2100-9, c 1, I 1-4). The Examiner has full latitude to interpret each claim in the broadest reasonable sense.

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Examiner will reference prior art using terminology familiar to one of ordinary skill in the art. Such an approach is broad in concept and can be either explicit or implicit in meaning.

10. Examiner's Notes are provided with the cited references to prior art to assist the applicant to better understand the nature of the prior art, application of such prior art and, as appropriate, to further indicate other prior art that maybe applied in other office actions. Such comments are entirely consistent with the intent and spirit of compact prosecution. However, and unless otherwise stated, the Examiner's Notes are not prior art but a link to prior art that one of ordinary skill in the art would find inherently appropriate.

11. Unless otherwise annotated, Examiner's statements are to be interpreted in reference to that of one of ordinary skill in the art. Statements made in reference to the condition of the disclosure constitute, on the face of it, the basis and such would be obvious to one of ordinary skill in the art, establishing thereby an inherent prima facie statement.

12. Examiner's Opinion: ¶¶ 9-11 apply. The Examiner has full latitude to interpret each claim in the broadest reasonable sense.

Conclusion

7. The prior art of record and not relied upon is considered pertinent to applicant's disclosure.

- Fleehart et al, USPN 6,820,256
- Lin, USPN 6,754,763
- Bauman et al, USPN 5,412,756

8. Claims 1-19 are rejected.

Correspondence Information

Any inquiry concerning this information or related to the subject disclosure should be directed to the Primary Examiner, Joseph P. Hirl, whose telephone number is (571) 272-3685. The Examiner can be reached on Monday – Thursday from 6:00 a.m. to 4:30 p.m.

If attempts to reach the Examiner by telephone are unsuccessful, the Examiner's supervisor, David R. Vincent can be reached at (571) 272-3080.

Any response to this office action should be mailed to:

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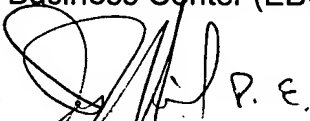
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(located on the first floor of the south side of the Randolph Building);

or faxed to:

(571) 273-8300 (for formal communications intended for entry.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have any questions on access to Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll free).


Joseph P. Hirl
Primary Examiner
March 30, 2006